

William Foy

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EDUCATION

Carnegie Mellon University | B.S. in Electrical and Computer Engineering
Intended Minor in Computer Science, QPA: 3.9/4.0

Pittsburgh, PA
Expected May 2022

Science and Mathematics Academy at Aberdeen High School | High School
Magnet Program, GPA: 4.0/4.0

Aberdeen, MD
May 2018

RELEVANT COURSEWORK

Introduction to Electrical and Computer Engineering
Introduction to Computer Systems
Introduction to Android Development

Principles of Imperative Computation
Functional Programming
Concepts of Mathematics

INDUSTRY EXPERIENCE

Booz Allen Hamilton | Reverse Engineering Intern

Ft. Meade, MD

- Performed full security analysis on network-attached storage device
- Reverse engineering of firmware update binaries
- Automation of custom firmware modification

Summer 2019

Booz Allen Hamilton | Cybersecurity Intern

Ft. Meade, MD

- Performed security audit on a commercial mesh Wi-Fi router
- Exploited multiple web client vulnerabilities

Summer 2018

PROJECTS

Defense against Quadcopter Security Vulnerabilities

Aberdeen, MD

- High School Capstone Project with Booz Allen Hamilton mentor
- Implemented WPA2 Wi-Fi protocol and SSH server onboard Parrot AR.Drone 2.0
- Cross-compiled software for ARM, including wpa_supplicant and Dropbear

Fall 2017 - Spring 2018

Autonomous Racecar Project (MIT Beaver Works Summer Institute)

Cambridge, MA

- Developed software for miniature racecars to navigate an obstacle-filled course
- Utilized control systems and computer vision through integration of Python with ROS

Summer 2017

SKILLS

Languages: C/C++ • Bash • Python • SML • Java • VBA

Tools: Git • Unix • Vim • L^AT_EX

Software: Ghidra • IDA • ROS • Android Studio

EXTRACURRICULAR ACTIVITIES

Plaid Parliament of Pwning (PPP) at Carnegie Mellon University

- Participation in Capture-the-Flag competitions

Carnegie Mellon Racing

- Aided in development of firmware for Formula SAE electric racecar
- Worked with RTOS and PWM signals for fan speed control

SDC Buggy Team (Carnegie Mellon Annual Spring Carnival)

- Contributions to team efforts in buggy racing competition

HONORS

College of Engineering Dean's List, Fall 2018 and Spring 2019